

IN THE SPECIFICATION:

Please amend the paragraph beginning on page 76, line 10 as follows:

--Colonies of undifferentiated ES cells from the cell lines HES-1 and HES-2 were continuously cultured on mouse embryonic fibroblasts feeder layer for 2-3 weeks. At one week after passage, some spontaneous differentiation was usually identified by changes in cell morphology in the center of the colonies. The process of differentiation included at this early stage the neuroectodermal lineage as evident by the expression of early neural markers such as nestin and PAX-6 (Figure 19). From the second week after passage, areas with differentiated small piled tightly packed cells could be identified in the colonies of both cell lines by phase and inverted microscope. During the third week these areas became more defined from neighboring areas of the colony (Figure 26). The size and demarcation of these areas was enhanced if the serum containing ES cell culture medium was replaced after a week or preferably after two weeks from passage with serum free medium supplemented with EGF (20ng/ml) and FGF bFGF (20ng/ml). The cells in these areas were not reactive in immunohistochemical staining with the antibody against the early neuroectodermal marker polysialylated NCAM. The areas were large and well demarcated sufficiently to allow mechanical removal of clumps of cells by a micropipette in 54% of the colonies cultured in serum containing medium (67/124, HES-1). Clumps were removed from differentiating colonies of HES-1 and HES-2 and were transferred to serum free medium supplemented with basic fibroblast growth factor (bFGF) and epidermal growth factor (EGF). At the time of isolation, the clumps were comprised mostly of a layer of the small tightly packed cells (about 100-300 cells/clump), on top of some loosely attached larger cells. It was possible to remove these larger cells mechanically or by enzymatic digestion. Within an hour the clumps started to change their shape toward spheres and after 24 hours all the clumps turned into round spheres (Figure 5a).--